# Habitat Project Proposal

Proposal Title: Cornia's Middle Ridge Ranch
Proposal Number: 159

DWR Region: Northern Region Lead Agency: Private County: Rich

Project Manager: Rick Danvir PM Phone: Regional Priority: High

Project Type: Terrestrial Habitat Proposed Start Date: 08/01/2009

Project Location: Rich County

**Project Description:** Rangeland restoration, fencing and water development on 500 acres.

#### Description of Problem/Need:

Cornia's Middle Ridge Ranch is comprised of about 6,000 acres of private lands, 1200 acres of Bureau of Land Management (BLM) lands and 300 acres of state lands located on the ridge separating Woodruff creek and Utah highway 39. This area and much of Rich County is dominated by dense stands of Sagebrush with a sparse herbaceous under story. Ranging from about 6,000 to 7,500 feet elevation, Middle Ridge supports a diverse stand of vegetation typical of the region including Wyoming, Basin, and Mountain Sagebrush, Bitterbrush, Rabbitbrush, Aspen, Bluebunch and Western Wheatgrass, and a significant amount of riparian vegetation, including Sedges and Willows. Unfortunately, a number of areas of critical deer winter range have burned, removing the important brush components and leaving heavy cheatgrass cover in its place. The cheatgrass dominated portions of the range apparently resulted from a wildfire burn 15 years ago coupled with summer long grazing by cattle and heavy browsing by wildlife in winter. This range supports significant numbers of elk and mule deer each winter. South and west facing slopes in the lower elevations are critically important mule deer winter ranges, supporting >1,000 deer in deep snow winters. These deer provide hunting opportunities for sportsmen directly and indirectly. First, Middle Ridge is a Cooperative Wildlife Management Unit allowing fee access. Second, Mule deer radio-collared on this winter range in the spring of 1997 summered on both private and U.S. Forest Service lands to the north and west. Telemetry data suggests that >50% of big game wintering on this ranch occur on either US Forest Service lands or CWMU lands during the hunting season, thus are available to sportsmen.

This area also contains one of the last self-sustaining populations of Bear River Bonneville Cutthroat Trout. Woodruff Creek provides 100% of the Cutthroat Trout caught by public anglers each year in Woodruff Reservoir. Sage Grouse utilize the ranch year-round and Pygmy Rabbits may be present. We believe habitat quality for terrestrial and aquatic species will be enhanced through the activities outlined in this proposal.

Modifications on Middle Ridge would also be expected to benefit other Sagebrush associated species and a small number of riparian species that occur, or could be found in the area, including Elk, Moose, Badger, White-tailed Jackrabbit, Cottontail, Coyote, Uinta Ground Squirrel, Least Chipmunk, Deer Mouse, Brewer's and Sage Sparrow, Lark Bunting, Sage Thrasher, Horned Lark, Short-eared Owl, Northern Harrier, American Kestrel, Swainson's, Ferruginous and Red-tailed Hawk, Golden Eagle and Horned Toad. Until 2004, this area consisted of one large pasture with water available in the creek bottom and from widely scattered springs. Cattle had access to the whole property between May 10th and September 7th. In 2004, 2 miles of fence were completed to form one new pasture that will hold cattle in two pastures, cutting the grazing time dramatically. Four springs were developed in the higher country to provide good quality water for wildlife and livestock away from the creek. Improving water distribution will help to control the timing and intensity of cattle grazing on lower elevation winter range. Further improvements of cattle management should help restore the perennial components of this critical wintering area.

Funding for this first phase of the project was provided by the landowner (fencing), the Rocky Mountain Elk Foundation (water) and the Utah Endangered Species Mitigation Fund (planning).

#### Objectives

- 1. Improve winter habitat for Mule Deer;
- 2. Improve habitat quality for Bear River Bonneville Cutthroat Trout;
- 3. Improve habitat quality for Sage Grouse;
- 4. Reduce soil erosion and increase water quality;
- 5. Increase diversity and abundance of other Sagebrush obligate species.

**Objectives:** To improve and restore range for mule deer and greater sage grouse.

## Relevance to Strategic Plans:

This project is located wholly within the focus area designated by UDWR and UPCD. This project also has the backing of the Rich County CRM and has met the criteria for approval with this group. This would tie in with the conservation plans of the CRM. It will also enrich the shrubsteppe habitat as outlined in WAP.

Potential Risks: Loss of critical mule deer habitat. Continuation of current grazing plan. Loss of understory for sage grouse.

#### Proposed Methods:

Proposed modifications are primarily designed to facilitate time control grazing management which has been shown to benefit wildlife, especially Sage Grouse and big game, in Rich County. Because of their positive influence on herbaceous production, we also believe these treatments will improve habitat for Pygmy Rabbits if they are present.

The proposed management plan calls for building an additional eight miles of four-strand barbwire fence, splitting the area into a total of five pastures with 6 possible upon approval from the BLM. This will allow pastures to be properly rested, shorten grazing periods, shift livestock use up-slope and away from the riparian area. Approval for 2 of the 8 miles of fence from BLM is currently held up by a lengthy NEPA process that is being undertaken by the Salt Lake District Office. Completion of that portion of the fence will be delayed until approval is granted from the agency.

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The fences and water developments will serve three primary purposes. First, they will allow the grazers to control the location, timing, intensity and duration of grazing. Such time control has been shown to increase plant diversity, forage production and ground cover creating beneficial situations for wildlife and watersheds. Second, improving abundance and distribution of water will also benefit wildlife during the summer and fall. Finally, these pastures will allow us to isolate and rest areas where we implement reseeding projects for two years, allowing establishment of the new herbaceous community.

To restore critical wintering areas that are currently dominated by cheatgrass, we propose to disk and drill the flatter areas, then aerially seed and drag an Ely chain across the steeper portions of the approximately 500 acres of cheatgrass range. Existing pockets of brush, juniper and perennial grasses will be avoided. All plantings will include a diverse mix of grasses, forbs, forbs and shrubs, with special emphasis on palatable browse species (e.g. Sagebrush, Bitterbrush, Four-winged Saltbush and Forage Kochia) on essential deer winter range. The treated area will be rested for a period of two growing seasons to allow sufficient plant establishment and seed production.

Shapefile Name: HPD2009\GIS Proposals\NR\159.mdb Seed Source: GBRC

UPCD Reg Team Coord Date: 01/16/2008

Proposed NEPA Action:

no NEPA on our end, no Federal Nexus to FWS

NEPA being conducted by the BLM it should include arch. We will need copies of the SHPO consultation letter for our files. 2-4-05

Proposed Arch Action:

## ✓ Vegetation Monitoring ✓ Wildlife Monitoring

#### Monitoring Information:

There are a number of ongoing monitoring projects that will allow us to evaluate the success of this project. First, the Utah Division of Wildlife Resources (DWR) samples big game populations and productivity. Improved grazing should improve production (increased juvenile: adult ratios) and improved winter range (as the result of improved grazing and seeding) should increase the number of animals that can overwinter on Middle Ridge. Second, the division monitors Sage Grouse leks during the breeding season and counts broods during the early summer. With improved grazing we expect increases in herbaceous cover which should lead to improved populations and lek attendance within a decade. Finally, there is currently a large cooperative effort to monitor range and wildlife populations in Rich County as part of the Rich County Coordinated Resource Management System. This monitoring project is still in the early stages, but it is examining both population trends of selected species throughout the county as well as looking at the local impacts of range management activities such as grazing, vegetation treatments, water developments, etc.

### Grazing Management:

SPECIES BENEFITING		
Greater Sage-grouse	Mule Deer	Elk

Moose Pronghorn Shrubsteppe Birds

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LAND OWNERSHIP		
Owner		Acres
Private		500
	Total	500

## PROPOSED FUNDING

Source		Amount Requested	Date Approved	Amount Approved
NRCS		\$22,875.00		
DNR Watershed (FY0	9)	\$65,000.00		\$0.00
Private		\$22,875.00		\$0.00
	Totals	\$110,750.00		\$0.00

Pygmy Rabbit

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# PROPOSED BUDGET

				In Kind/
Item	Description	DWR Account	Partner Contrib.	
Personal Services	Planning, for consulting biologist		\$0.00	\$3,750.00
Contractual Services	Fencing materials and installation		\$0.00	\$42,000.00
Archaeological Survey	Arch on private land		\$15,000.00	\$0.00
Seed (GBRC)	Seed, seed application		\$50,000.00	\$0.00
		Totals	\$65,000.00	\$45,750.00

# Project Map:

